

Application No. 08/480,908
Amendment dated February 13, 2007
Reply to Office Action of September 19, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) An interbody spinal fusion implant for insertion across a disc space between adjacent vertebral bodies of a human spine, said implant comprising a body having an insertion end, a trailing end, a length between said ends, and an outer surface including a thread for engaging said implant to the adjacent vertebral bodies, the outer locus of said thread forming a substantially frusto-conical configuration along at least a portion of the length of said Implant nearer said trailing end than said Insertion end.
2. (previously presented) The implant of claim 1 in which said body has a substantially frusto-conical configuration along a sufficient portion of said implant that is adapted to contact the adjacent vertebral bodies when implanted in the spine so as to maintain an angulation of the adjacent vertebral bodies relative to one another.
3. (original) The implant of claim 1 in which said body has a substantially cylindrical configuration.
4. (original) The spinal fusion implant of claim 1 in which said trailing end is larger than said Insertion end.
5. (original) The spinal fusion implant of claim 1 in which said insertion end is larger than said trailing end.
6. (original) The spinal fusion implant of claim 1 in which said Implant comprises a bone ingrowth material.
7. (original) The spinal fusion implant of claim 1 in which said implant comprises a fusion promoting material.
8. (original) The spinal fusion Implant of claim 1 in which said implant is at least in part bioabsorbable.

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9. (previously presented) The spinal fusion implant of claim 1 in which said body has a plurality of openings for retaining fusion promoting material.
10. (cancelled).
11. (previously presented) The spinal fusion implant of claim 1 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being variable along the length of said implant.
12. (previously presented) The spinal fusion implant of claim 1 in which said thread has a thread height measured from said body which is variable along the length of said implant.
13. (previously presented) The spinal fusion implant of claim 1 in which said thread beyond said insertion end has a thread height measured from said body which is substantially constant along the length of said implant.
14. (previously presented) The spinal fusion implant of claim 1 in which said body comprises a porous material.
15. (previously presented) The spinal fusion implant of claim 1 in which said body has an internal chamber and means for accessing said internal chamber.
16. (previously presented) The spinal fusion implant of claim 15 in which said internal chamber is capable of containing fusion promoting material.
17. (previously presented) The spinal fusion implant of claim 15 in which said body includes a wall surrounding said internal chamber.
18. (previously presented) The spinal fusion implant of claim 17 in which said wall has a plurality of openings passing therethrough in communication with said internal chamber.
19. (previously presented) The spinal fusion implant of claim 15 in which said body has means for closing said accessing means.
20. (previously presented) The spinal fusion implant of claim 16 in which said body has means for closing said accessing means.
21. (original) The spinal fusion implant of claim 1 in which said implant includes an engagement means for engaging instrumentation for the insertion of said

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implant.

22. (original) The spinal fusion implant of claim 1 in which at least a portion of said outer surface comprises wells having at least partial walls.
23. (previously presented) The spinal fusion implant of claim 1 in which said body has a longitudinal central axis and at least one truncated side forming a planar surface parallel to said central axis.
24. (previously presented) The spinal fusion implant of claim 23 in which said thread has a thread height measured from said body which is greatest at said truncated side.
25. (previously presented) An interbody spinal fusion implant for insertion across a disc space between two adjacent vertebral bodies of a human spine, said implant comprising a body having a substantially frusto-conical configuration along a sufficient portion of said body that is adapted to contact the adjacent vertebral bodies when implanted in the spine so as to maintain an angulation of the adjacent vertebral bodies relative to one another, said body having an insertion end, a trailing end, and an outer surface including a thread for engaging said implant to the adjacent vertebral bodies of the spine, the locus of said thread forming a substantially cylindrical configuration.

Claims 26 and 27. (cancelled).

28. (previously presented) The spinal fusion implant of claim 25 in which said trailing end is larger than said insertion end.
29. (previously presented) The spinal fusion implant of claim 25 in which said insertion end is larger than said trailing end.
30. (previously presented) The spinal fusion implant of claim 25 in which said implant comprises a bone ingrowth material.
31. (previously presented) The spinal fusion implant of claim 25 in which said implant comprises a fusion promoting material.
32. (previously presented) The spinal fusion implant of claim 25 in which said implant is at least in part bioabsorbable.

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33. (previously presented) The spinal fusion implant of claim 25 in which said body has a plurality of openings for retaining fusion promoting material.
34. (previously presented) The spinal fusion implant of claim 25 in which said thread beyond said insertion end has a thread radius measured from the longitudinal central axis of said implant, said thread radius being substantially uniform throughout the length of said implant.
35. (previously presented) The spinal fusion implant of claim 25 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being variable along at least a portion of said implant.
36. (previously presented) The spinal fusion implant of claim 25 in which said thread has a thread height measured from said body which is variable along the length of said implant.
37. (previously presented) The spinal fusion implant of claim 25 in which said thread has a thread height measured from said body which is substantially constant along at least a portion of said implant.
38. (previously presented) The spinal fusion implant of claim 25 in which said body comprises a porous material.
39. (previously presented) The spinal fusion implant of claim 25 in which said body has an internal chamber and means for accessing said internal chamber.
40. (previously presented) The spinal fusion implant of claim 39 in which said internal chamber is capable of containing fusion promoting material.
41. (previously presented) The spinal fusion implant of claim 39 in which said body includes a wall surrounding said internal chamber.
42. (previously presented) The spinal fusion implant of claim 41 in which said wall has a plurality of openings passing therethrough in communication with said internal chamber.
43. (previously presented) The spinal fusion implant of claim 39 in which said body has means for closing said accessing means.

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44. (previously presented) The spinal fusion implant of claim 25 in which one of said ends includes an engagement means for engaging instrumentation for the insertion of said implant.
45. (previously presented) The spinal fusion implant of claim 25 in which at least a portion of said outer surface comprises wells having at least partial walls.
46. (previously presented) The spinal fusion implant of claim 25 in which said implant is configured to be placed in close proximity in a side by side alignment to a second spinal fusion implant, said first and second implants when placed together having a combined overall width that is less than the sum of the individual maximum diameters of each of said first and second implants.
47. (previously presented) The spinal fusion implant of claim 25 in which said body has a longitudinal central axis and at least one truncated side forming a planar surface parallel to said central axis.
48. (previously presented) The spinal fusion implant of claim 47 in which said thread has a thread height measured from said body which is greatest at said truncated side.
49. (previously presented) An interbody spinal fusion implant for insertion across a disc space between adjacent vertebral bodies of a human spine, said implant comprising a body having a substantially cylindrical configuration, a longitudinal central axis and at least one truncated side forming a planar surface parallel to said central axis, said body having an insertion end, a trailing end, and an outer surface including a thread for engaging said implant to the adjacent vertebral bodies of the spine, the locus of said thread forming a substantially cylindrical configuration.
50. (previously presented) The spinal fusion implant of claim 49 in which said implant comprises a bone ingrowth material.
51. (previously presented) The spinal fusion implant of claim 49 in which said implant comprises a fusion promoting material.

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52. (previously presented) The spinal fusion implant of claim 49 in which said implant is at least in part bioabsorbable
53. (previously presented) The spinal fusion implant of claim 49 having a plurality of openings capable retaining fusion promoting material.
54. (previously presented) The spinal fusion implant of claim 49 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being substantially uniform for at least a portion of said implant.
55. (previously presented) The spinal fusion implant of claim 49 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being variable along at least a portion of said implant.
56. (previously presented) The spinal fusion implant of claim 49 in which said thread has a thread height measured from said body which is variable along at least a portion of said implant.
57. (previously presented) The spinal fusion implant of claim 49 in which said thread has a thread height measured from said body which is substantially constant along the length of said implant.
58. (previously presented) The spinal fusion implant of claim 49 body comprises a porous material.
59. (previously presented) The spinal fusion implant of claim 49 in which said body has an internal chamber and means for accessing said internal chamber.
60. (previously presented) The spinal fusion implant of claim 59 in which said internal chamber is capable of containing fusion promoting material.
61. (previously presented) The spinal fusion implant of claim 59 in which said includes a wall surrounding said internal chamber.
62. (previously presented) The spinal fusion implant of claim 59 in which said wall has a plurality of openings passing therethrough in communication with said internal chamber.

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63. (previously presented) The spinal fusion implant of claim 59 in which said implant has means for closing said accessing means.
64. (previously presented) The spinal fusion implant of claim 49 in which one of said ends includes an engagement means for engaging instrumentation for the insertion of said implant.
65. (previously presented) The spinal fusion implant of claim 49 in which at least a portion of said outer surface comprises wells having at least partial walls.
66. (previously presented) The spinal fusion implant of claim 49 in which said implant is configured to be placed in close proximity in a side by side alignment to a second spinal fusion implant, said first and second implants when placed together having a combined overall width that is less than the sum of the individual maximum diameters of each of said first and second implants.
67. (previously presented) The spinal fusion implant of claim 49 in which said body has a second truncated side forming a planar surface parallel to said central axis and opposite to said one truncated side.
68. (previously presented) The spinal fusion implant of claim 67 in which said thread has a thread height measured from said body which is greatest at at least one of said truncated sides.
69. (previously presented) An interbody spinal fusion implant for insertion across a disc space between two adjacent vertebral bodies, said implant comprising a body having a substantially frusto-conical configuration along a sufficient portion of said body that is adapted to contact the adjacent vertebral bodies when implanted in the spine so as to maintain an angulation of the adjacent vertebral bodies relative to one another, said body having, an insertion end, a trailing end, and an outer surface including a thread for engaging said implant to the adjacent vertebral bodies of the spine, said implant being made of a material appropriate for human implantation.
70. (previously presented) The implant of claim 69 in which the outer locus of said thread forms a substantially cylindrical configuration.

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71. (previously presented) The spinal fusion Implant of claim 69 in which said insertion end is larger than said trailing end.
72. (previously presented) The spinal fusion implant of claim 71 in which said insertion end comprises a tapered leading portion.
73. (previously presented) The spinal fusion implant of claim 69 in which said trailing end is larger than said insertion end.
74. (previously presented) The spinal fusion implant of claim 69 in which said implant comprises a bone ingrowth material.
75. (previously presented) The spinal fusion implant of claim 69 in which said Implant comprises a fusion promoting material.
76. (previously presented) The spinal fusion Implant of claim 69 in which said implant is at least in part bioabsorbable.
77. (previously presented) The spinal fusion implant of claim 69 in which said body has a plurality of openings for retaining fusion promoting material.
78. (previously presented) The spinal fusion implant of claim 69 in which said thread has a thread radius measured from the longitudinal central axis of said Implant, said thread radius being substantially uniform throughout the length of said implant.
79. (previously presented) The spinal fusion implant of claim 69 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being variable along the length of said implant.
80. (previously presented) The spinal fusion implant of claim 69 in which said thread has a thread height measured from said body which is variable along the length of said implant.
81. (previously presented) The spinal fusion implant of claim 69 in which said thread has a thread height measured from said body which is substantially constant along the length of said implant.
82. (previously presented) The spinal fusion implant of claim 69 in which said body comprises a porous material.

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83. (previously presented) The spinal fusion implant of claim 69 in which said body has an internal chamber and an access opening for accessing said internal chamber.
84. (previously presented) The spinal fusion implant of claim 83 in which said internal chamber is capable of retaining fusion promoting material.
85. (previously presented) The spinal fusion implant of claim 83 in which said body includes a wall surrounding said internal chamber.
86. (previously presented) The spinal fusion implant of claim 85 in which said wall has a plurality of openings passing therethrough in communication with said internal chamber.
87. (previously presented) The spinal fusion implant of claim 83 in which said body has means for closing said accessing means.
88. (previously presented) The spinal fusion implant of claim 69 in which one of said ends includes an engagement means for engaging instrumentation for the insertion of said implant.
89. (previously presented) The spinal fusion implant of claim 69 in which at least a portion of said outer surface comprises wells having at least partial walls.
90. (previously presented) The spinal fusion implant of claim 69 in which said implant is configured to be placed in close proximity in a side by side alignment to a second spinal fusion implant, said first and second implants when placed together having a combined overall width that is less than the sum of the individual maximum diameters of each of said first and second implants.
91. (previously presented) The spinal fusion implant of claim 69 in which said body has a longitudinal central axis and at least one truncated side forming a planar surface parallel to said central axis.
92. (previously presented) The spinal fusion implant of claim 91 in which said thread has a thread height which when measured from said body is at its greatest on said truncated side.

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93. (previously presented) The spinal fusion implant of claim 49 in which said thread has a thread height measured from said body which is greatest at said truncated side.
94. (previously presented) The spinal fusion implant of claim 25 in which said implant has an upper and lower portion for engaging the bone of the adjacent vertebral bodies, said upper and lower portions comprising a plurality of macroscopic openings.
95. (previously presented) The spinal fusion implant of claim 49 in which said implant has an upper and lower portion for engaging the bone of the adjacent vertebral bodies, said upper and lower portions comprising a plurality of macroscopic openings.
96. (previously presented) The spinal fusion implant of claim 69 in which said implant has an upper and lower portion for engaging the bone of the adjacent vertebral bodies, said upper and lower portions comprising a plurality of macroscopic openings.
97. (previously presented) The spinal fusion implant of claim 23 in which said thread is continuous over at least a portion of said truncated side.
98. (previously presented) The spinal fusion implant of claim 1 in which said thread has a height measured from said body that is larger at said trailing end than at said insertion end.
99. (previously presented) The spinal fusion implant of claim 1 in which said body has a plurality of openings passing therethrough so as to allow bone to grow from adjacent vertebral body to adjacent vertebral body and through said implant.
100. (previously presented) The spinal fusion implant of claim 23 in which said body has a second truncated side forming a planar surface parallel to said central axis and opposite to said one truncated side.
101. (previously presented) The spinal fusion implant of claim 25 in which said thread has a height measured from said body that is larger at said trailing end than at

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said insertion end.

102. (previously presented) The spinal fusion implant of claim 25 in which said body has a plurality of openings passing therethrough so as to allow bone to grow from adjacent vertebral body to adjacent vertebral body and through said implant.
103. (previously presented) The spinal fusion implant of claim 47 in which said body has a second truncated side forming a planar surface parallel to said central axis and opposite to said one truncated side.
104. (previously presented) The spinal fusion implant of claim 49 in which said body has a plurality of openings passing therethrough so as to allow bone to grow from adjacent vertebral body to adjacent vertebral body and through said implant.
105. (previously presented) The spinal fusion implant of claim 69 in which said thread has a height measured from said body that is larger at said trailing end than at said insertion end.
106. (previously presented) The spinal fusion implant of claim 69 in which said body has a plurality of openings passing therethrough so as to allow bone to grow from adjacent vertebral body to adjacent vertebral body and through said implant.
107. (previously presented) The spinal fusion implant of claim 91 in which said body has a second truncated side forming a planar surface parallel to said central axis and opposite to said one truncated side.
108. (previously presented) An interbody spinal fusion implant for insertion across a disc space between adjacent vertebral bodies of a human spine, said implant comprising:
 - a body having an outer surface, an insertion end, a trailing end, and a length between said insertion end and said trailing end, said body having transversely opposed arcuate portions oriented toward the adjacent vertebral bodies, said arcuate portions being in a diverging relationship to one another

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along a sufficient portion of the length of said body adapted to contact the adjacent vertebral bodies sufficient to maintain angulation of the vertebral bodies relative to one another, said outer surface comprising a thread for engaging said implant to the adjacent vertebral bodies of the spine.

109. (previously presented) The spinal fusion implant of claim 108 in which said trailing end is larger than said insertion end.
110. (previously presented) The spinal fusion implant of claim 108 in which said insertion end is larger than said trailing end.
111. (previously presented) The spinal fusion implant of claim 108 in which said body has a plurality of openings for retaining fusion promoting material.
112. (previously presented) The spinal fusion implant of claim 108 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being substantially uniform throughout at least a portion of said implant.
113. (previously presented) The spinal fusion implant of claim 108 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being variable along the length of said implant.
114. (previously presented) The spinal fusion implant of claim 108 in which said thread has a thread height measured from said body which is variable along the length of said implant.
115. (previously presented) The spinal fusion implant of claim 108 in which said body has an internal chamber and means for accessing said internal chamber.
116. (previously presented) The spinal fusion implant of claim 115 in which said body has means for closing said accessing means.
117. (previously presented) The spinal fusion implant of claim 108 in which at least a portion of said outer surface comprises wells having at least partial walls.
118. (previously presented) The spinal fusion implant of claim 108 in which said implant is configured to be placed in close proximity in a side by side alignment to a second spinal fusion implant, said first and second implants when placed

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together having a combined overall width that is less than the sum of the individual maximum diameters of each of said first and second implants.

119. (previously presented) The spinal fusion implant of claim 108 in which said body has a longitudinal central axis and at least one truncated side forming a planar surface parallel to said central axis.
120. (cancelled—both occurrences).
121. (previously presented) The spinal fusion implant of the claim 108 in which said arcuate portions are along the entire length of said body.
122. (previously presented) The spinal fusion implant of claim 108 in which the outer locus of the thread forms a substantially cylindrical configuration.
123. (previously presented) The spinal fusion implant of claim 108 in which the outer locus of the thread forms a substantially frusto-conical configuration.
124. (previously presented) The spinal fusion implant of claim 108 in which said implant is made of a material that is stronger than bone.
125. (previously presented) The spinal fusion implant of claim 1 in which said implant is made of a material that is stronger than bone.
126. (previously presented) The spinal fusion implant of claim 25 in which said implant is made of a material that is stronger than bone.
127. (previously presented) The spinal fusion implant of claim 49 in which said implant is made of a material that is stronger than bone.
128. (previously presented) The spinal fusion implant of claim 69 in which said implant is made of a material that is stronger than bone.
129. (previously presented) The spinal fusion implant of claim 1 in which said body has a length in the range of 10-32mm.
130. (previously presented) The spinal fusion implant of claim 25 in which said body has a length in the range of 10-32mm.
131. (previously presented) The spinal fusion implant of claim 49 in which said body has a length in the range of 10-32mm.

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132. (previously presented) The spinal fusion implant of claim 69 in which said body has a length in the range of 10-32mm.
133. (previously presented) The spinal fusion implant of claim 108 in which said length is in the range of 10-32mm.
134. (previously presented) The spinal fusion implant of claim 1 having a diameter at said insertion end in the range of 8-22mm.
135. (previously presented) The spinal fusion implant of claim 25 having a diameter at said insertion end in the range of 8-22mm.
136. (previously presented) The spinal fusion implant of claim 49 having a diameter at said insertion end in the range of 8-22mm.
137. (previously presented) The spinal fusion implant of claim 69 having a diameter at said insertion end in the range of 8-22mm.
138. (previously presented) The spinal fusion implant of claim 108 having a diameter at said insertion end in the range of 8-22mm.
139. (previously presented) The spinal fusion implant of claim 1 having a diameter at said trailing end in the range of 10-24mm.
140. (previously presented) The spinal fusion implant of claim 25 having a diameter at said trailing end in the range of 10-24mm.
141. (previously presented) The spinal fusion implant of claim 49 having a diameter at said trailing end in the range of 10-24mm.
142. (previously presented) The spinal fusion implant of claim 69 having a diameter at said trailing end in the range of 10-24mm.
143. (previously presented) The spinal fusion implant of claim 108 having a diameter at said trailing end in the range of 10-24mm.
144. (previously presented) A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:
an elongated body having a length, a first diameter at a first end and a larger second diameter at a second end opposite said first end, said first and

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second diameters sized to be greater than the space between the adjacent vertebrae;

said body having an outer surface that is substantially continuously tapered from said first end to said second end with external threads defined on said outer surface and extending substantially entirely along said length of said body.

145. (previously presented) The fusion device according to claim 144, wherein said body is formed of a porous biocompatible material to permit bone tissue ingrowth into the device.

Claims 146 and 147 (cancelled).

148. (previously presented) The spinal fusion implant of claim 119 in which said body has a second truncated side forming a planar surface parallel to said central axis and opposite to said one truncated side.
149. (previously presented) The spinal fusion implant of claim 108 in which said body has a plurality of openings passing therethrough so as to allow bone to grow from adjacent vertebral body to adjacent vertebral body and through said implant.
150. (previously presented) The spinal fusion implant of claim 1 in which said thread has a thread radius measured from the longitudinal central axis of said implant, said thread radius being substantially uniform throughout at least a portion of said implant.
151. (previously presented) The spinal fusion implant of claim 25 in which said body has a substantially frusto-conical configuration.
152. (previously presented) The spinal fusion implant of claim 25 in which said body has at least in part a cylindrical configuration.
153. (previously presented) The spinal fusion implant of claim 1, further in combination with a fusion promoting substance.
154. (previously presented) The spinal fusion implant of claim 153, wherein said fusion promoting substance is bone morphogenetic protein.

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155. (previously presented) The spinal fusion implant of claim 153, wherein said fusion promoting substance includes hydroxyapatite.

156. (previously presented) The spinal fusion implant of claim 153, wherein said fusion promoting substance includes hydroxyapatite tricalcium phosphate.

Claim 157. (cancelled).

158. (previously presented) The spinal fusion implant of claim 153, wherein said fusion promoting substance is bone.

159. (previously presented) The spinal fusion implant of claim 25, further in combination with a fusion promoting substance.

160. (previously presented) The spinal fusion implant of claim 159, wherein said fusion promoting substance is bone morphogenetic protein.

161. (previously presented) The spinal fusion implant of claim 159, wherein said fusion promoting substance includes hydroxyapatite.

162. (previously presented) The spinal fusion implant of claim 159, wherein said fusion promoting substance includes hydroxyapatite tricalcium phosphate.

Claim 163. (cancelled).

164. (previously presented) The spinal fusion implant of claim 159, wherein said fusion promoting substance is bone.

165. (previously presented) The spinal fusion implant of claim 49, further in combination with a fusion promoting substance.

166. (previously presented) The spinal fusion implant of claim 165, wherein said fusion promoting substance is bone morphogenetic protein.

167. (previously presented) The spinal fusion implant of claim 165, wherein said fusion promoting substance includes hydroxyapatite.

168. (previously presented) The spinal fusion implant of claim 165, wherein said fusion promoting substance includes hydroxyapatite tricalcium phosphate.

Claim 169. (cancelled).

170. (previously presented) The spinal fusion implant of claim 165, wherein said fusion promoting substance is bone.

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- 171. (previously presented) The spinal fusion implant of claim 69, further in combination with a fusion promoting substance.
- 172. (previously presented) The spinal fusion implant of claim 171, wherein said fusion promoting substance is bone morphogenetic protein.
- 173. (previously presented) The spinal fusion implant of claim 171, wherein said fusion promoting substance includes hydroxyapatite.
- 174. (previously presented) The spinal fusion implant of claim 171, wherein said fusion promoting substance includes hydroxyapatite tricalcium phosphate.

Claim 175. (cancelled).

- 176. (previously presented) The spinal fusion implant of claim 171, wherein said fusion promoting substance is bone.
- 177. (previously presented) The spinal fusion implant of claim 108, further in combination with a fusion promoting substance.
- 178. (previously presented) The spinal fusion implant of claim 177, wherein said fusion promoting substance is bone morphogenetic protein.
- 179. (previously presented) The spinal fusion implant of claim 177, wherein said fusion promoting substance includes hydroxyapatite.
- 180. (previously presented) The spinal fusion implant of claim 177, wherein said fusion promoting substance includes hydroxyapatite tricalcium phosphate.

Claim 181. (cancelled).

- 182. (previously presented) The spinal fusion implant of claim 177, wherein said fusion promoting substance is bone.
- 183. (previously presented) A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:

an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of

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substantially flat portions extending along a substantial portion of said length of said body, said pair of substantially flat portions terminating adjacent a first end of said elongated body, said external threads defining at least one circumferentially continuous thread extending along a majority of the length of said elongated body.

184. (previously presented) The fusion device according to claim 183, wherein said pair of opposite arcuate portions defines an outer dimension adjacent a first end of said elongated body, said outer dimension being adapted for engagement within a lesser dimension of the disc space.
185. (previously presented) The fusion device according to claim 183, wherein said elongated body defines a hollow interior.
186. (previously presented) A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:
an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining an external thread extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said substantially flat portions being interrupted by said thread, said elongated body defining a hollow interior, said pair of arcuate portions each defining at least one opening extending therethrough in communication with said hollow interior.
187. (previously presented) The fusion device according to claim 186, further comprising a bone growth inducing material disposed within said hollow interior.
188. (previously presented) The fusion device according to claim 186, wherein said pair of substantially flat portions are disposed generally opposite one another.
189. (previously presented) The fusion device according to claim 186, wherein said pair of substantially flat portions are substantially parallel to one another.

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190. (previously presented) The fusion device according to claim 186, wherein said openings defined by said pair of arcuate portions are disposed generally opposite one another.
191. (previously presented) The fusion device according to claim 186, wherein said pair of arcuate portions are tapered along a substantial portion of said length of said elongated body.
192. (previously presented) The fusion device according to claim 186, further comprising an insertion instrument adapted to implant the fusion device within the disc space between the adjacent vertebrae.

Claims 193 and 194 (cancelled).

195. (new) An interbody spinal fusion implant for insertion within an implantation space formed across the height of a disc space between adjacent vertebral bodies of a human spine, said implant comprising:

a body having a leading end for insertion first into the disc space, a trailing end opposite said leading end, a central longitudinal axis therebetween, and a length along the central longitudinal axis, said body having opposed arcuate portions between said leading and trailing ends adapted to be placed within the implantation space oriented toward the adjacent vertebral bodies, respectively, said opposed arcuate portions having at least one opening therethrough, said openings being in communication with one another to permit for the growth of bone from adjacent vertebral body to adjacent vertebral body through said implant, said body having at least one truncated side along at least a portion of the central longitudinal axis between said opposed arcuate portions and between said leading and trailing ends; and

a thread along at least a portion of the length of said body adapted to engage said implant to the adjacent vertebral bodies, said thread having a thread height measured from said body which is greatest at said at least one truncated side, said at least one truncated side having a truncated portion between said thread and said leading end.

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196. (new) An interbody spinal fusion implant for insertion across a disc space between adjacent vertebral bodies of a human spine, said implant comprising a body having a substantially cylindrical configuration, a longitudinal central axis and at least one truncated side forming a planar surface parallel to said central axis, said body having an insertion end, a trailing end, and an outer surface including a thread for engaging said implant to the adjacent vertebral bodies of the spine, the locus of said thread forming a substantially cylindrical configuration.
197. (new) An interbody spinal fusion implant for insertion within an implantation space formed across the height of a disc space between adjacent vertebral bodies of a human spine, said implant comprising:
- a body having a leading end for insertion first into the disc space, a trailing end opposite said leading end, a mid-longitudinal axis through said leading and trailing ends, and opposed arcuate portions between said leading and trailing ends adapted to be placed within the implantation space oriented toward the adjacent vertebral bodies, respectively, said opposed arcuate portions having at least one opening therethrough, said openings being in communication with one another to permit for the growth of bone from adjacent vertebral body to adjacent vertebral body through said implant; and
 - a thread adapted to engage said implant to the adjacent vertebral bodies, said thread having a thread height measured from said body, said thread height being variable along more than one turn of said thread about the mid-longitudinal axis of said body.